DOCUMENT RESUME

ED 325 251 PS 019 219

AUTHOR Dawson, Deborah A.; Cain, Virginia S.
TITLE Child Care Arrangements: Health of Our Nation's Children, United States, 1988.
INSTITUTION National Center for Health Statistics (DHHS/PHS), Hyattsville, MD.
REPORT NO DHHS-PHS-90-1250
PUB DATE 1 Oct 90
NOTE 13p.
AVAILABLE FROM National Center for Health Statistics, 6525 Belcrest Road, Hyattsville, MD 20782.
PUB TYPE Reports - Research/Technical (143) -- Collected Works - Serials (022)
JOURNAL CIT Advance Data from Vital and Health Statistics; n187 Oct 1990

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Day Care; Early Childhood Education; *Employed Parents; *Mothers; National Surveys; Use Studies
IDENTIFIERS *Caregiver Child Ratio

ABSTRACT

Findings of the National Health Interview Survey on Child Health indicated that in 1988, a total of 13.3 million children 5 years of age and under were reported to be in some type of child care arrangement. Of these, 83 percent were children in families in which the mother was employed. The other 17 percent were in families in which the mother was not employed. In general, younger children tended to be in less formal care arrangements and older children were more likely to be in formal, organized group care situations. The data on the stability of care show that a substantial proportion of the children had experienced a change in child care arrangements during the preceding year. There is surprisingly little variation in the stabilty of child care arrangements for children of various ages. Characteristics of child care arrangements varied according to a number of socioeconomic and demographic characteristics. These included race and ethnicity, region and place of residence, family income, and mother's education. Further analysis of these differentials by means of a multivariate approach, will increase knowledge of the factors that influence choices about types of child care arrangements. (RH)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

Number 187 • October 1, 1990

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
X This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

Advance Data

From Vital and Health Statistics of the National Center for Health Statistics

ED325251
PS 019819

Child Care Arrangements

Health of Our Nation's Children, United States, 1988

by Deborah A. Dawson, Ph.D., Division of Health Interview Statistics, and Virginia S. Cain, Ph.D., National Institute of Child Health and Human Development

Introduction

Increasingly, the care of children in our society is a major concern for both parents and policymakers. The changing composition of families in the United States means that many children live in single-parent families in which the mother is the primary source of economic support. Even in families with two parents, frequently the mother is in the labor force. With 60 percent of the women with children 5 years of age and under being in the labor force, the number of children who spend a significant amount of time in a care arrangement while their mothers work is substantial (1). However, not only families in which the mother is employed arrange for care for their young children. Many families with mothers who are not in the labor force arrange for the care of their children, either to provide enrichment in the child's life or to provide care while the mother participates in school, volunteer work, leisure activities, or household work.

Given the basic need or desire for child care, the choices that parents make regarding the provider, the location, and the quality of care can differ greatly. Most child care research has examined the choice of child care arrangements for the children of employed mothers. This research indicates that the choice of care arrangement varies with characteristics of the mother, the family, the child, and the care situation itself. Research showing a relationship between the mother's education, race, and ethnicity and the parent's choice of child care arrangement treats the maternal variables as proxies for underlying preferences (2). The ability to pay for care limits the types of care the family may choose. Family income and mother's earnings have been shown to relate to choice of child care arrangements (3). The geographic location of the family may affect the availability of certain care arrangements (4,5).

The characteristic of the child most likely to influence choice of care arrangement is age (2). Parents of an infant or toddler may believe that the most appropriate care is care in their own home, where the child receives individual attention and is not exposed to the variety of infectious diseases found within groups of children (6–8). Further constraining factors on the placement of very young children in group care situations are age restrictions adopted by the provider or regulated by licensing agencies. For the older preschool child, the social interactions and educational programs available in nursery schools and day care centers may be viewed as beneficial (6).

Characteristics of the type of care have been related to the choices that parents make regarding child care and to child outcome measures. High-quality child care is generally regarded as care that is stable, that has a low child-to-staff ratio, and in which the provider has had training in child development and/or early childhood education (6).

This report examines child care arrangements for preschool children with respect to characteristics of the

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Public Health Service
Centers for Disease Control
National Center for Health Statistics
Manning Feinleib, M.D., Dr. P.H., Director

children and their families. Data on child care use have been collected not only about the children of employed women but also about children in families in which the mother is not employed. Several aspects of the quality of these child care arrangements are also examined.

Data and methods

This report is based on the National Health Interview Survey on Child Health (NHIS–CH), conducted in 1988 by the National Center for Health Statistics. The National Institute of Child Health and Human Development and the U.S. Health Resources and Services Administration cosponsored this study. Information was collected on a nationally representative sample of children 17 years of age and under. Details of the sample design and data collection procedures are presented in the technical notes.

Interviewers administered the NHIS–CH questionnaire to the adult household member who knew the most about the sample child's health. For 80 percent of the sample children, the respondent was the child's mother; for 10 percent, the child's father was the respondent. The questionnaire addressed a broad range of health-related topics, including child care arrangements; marital history of the child's mother; accidents, injuries, and medical conditions; birth weight and prenatal care; exposure to cigarette smoke; bedtime and sleeping arrangements; school attendance; developmental, learning, emotional, and behavioral problems; and sources of medical care.

Questions on child care arrangements were asked for all children 5 years of age and under, of whom there were 6,209 in the NHIS–CH sample. For this analysis, current use of child care was determined on the basis of a series of questions that varied according to the child's age and whether he or she attended regular school (kindergarten or first grade):

1. Children ages 4–5 years who attended first grade were counted as receiving child care if the respondent answered affirmatively to the question, "Other than [kindergarten/first grade/nursery school/preschool], in the past four weeks, has _____ been cared for in ANY kind of regular child care arrangement such as a day care center, playgroup, by a babysitter, relative, or some other regular arrangement?" If the interviewer had determined that the child's mother worked during hours other than when the child was in school, this question was coded "yes" automatically without asking it. The questions used to establish mother's work were, "[Have you/has _____'s mother] worked at a job or business for pay in the last 4 weeks?" and "[Do you/does she] work only while _____ is in (school level) or [do you/does she] work other hours?" Additional questions were asked to determine the types of child care arrangement used.
2. Children ages 4–5 years who attended kindergarten were counted as currently receiving child care if they met the conditions specified above or if they were reported as attending a kindergarten extended day care program.
3. Children ages 4–5 years who did not attend kindergarten or first grade and all children ages 2–3 years were counted as currently receiving child care if they met the conditions specified in item 1 above or if they were reported to attend nursery school or preschool. Nursery or preschool attendance was not asked for children in regular school.
4. Children under 2 years of age were counted as currently receiving child care if the respondent replied affirmatively to the question, "In the past four weeks, has _____ been cared for in ANY kind of regular child care arrangement such as a day care center, playgroup, by a babysitter, relative, or some other regular arrangement?" If the interviewer determined that the child's mother worked, this question was automatically coded "yes" without asking it. Additional questions were asked about the types of child care arrangement used. Nursery or preschool attendance was not asked for children under 2 years of age.

In summary, children were coded as currently receiving child care if they attended a kindergarten extended day care program, if they attended nursery school or preschool, if they were reported to have another form of regular child care arrangement, or if they were assumed to have such an arrangement because the mother worked during hours other than when the child was in school. Regular school attendance in kindergarten or first grade was *not* counted as a form of child care.

The questions used to determine whether the mother worked during nonschool hours (listed above) were asked as part of the series of questions concerning child care arrangements. Maternal employment status as determined through these questions was inconsistent with maternal employment status as reported in the basic health questionnaire (on the person record for the individual later identified as the mother figure) for 7 percent of the children 5 years of age and under. For these inconsistent cases, the independent variable for mother's employment was set to unknown, but the coding of current child care use was left as determined through the questions in NHIS–CH. This high level of inconsistency may reflect respondent confusion in some households as to who the mother figure was or to errors in selecting the correct wording of the question based on the alternate choices listed on the questionnaire ("Do you/did _____'s mother . . .").

For this analysis, children who currently received child care were automatically counted as having ever received child care. For children not counted as currently receiving child

care, having ever received child care was determined using the question, "Was _____ ever cared for in any regular child care arrangement?" Whether a child had ever received child care (ever use) may have been more narrowly interpreted than current use. There were no questions on whether the child ever attended nursery school, preschool, or a kindergarten extended day care program, nor were there questions on whether the mother ever worked during nonschool hours. It is impossible to determine how broadly respondents interpreted the question on having ever received child care.

Table 1. Basis for coding selected attributes of child care arrangement, by main source of care: United States, 1988

Main source of care	*Main source of care outside home?*	*Main care provider related to child?*
Day care center	Yes	No
Unrelated provider in child's home	No	No
Unrelated provider in provider's home	Yes	No
Father cares for child	No	Yes
Mother cares for child while working at home	No	Yes
Mother cares for child while working outside of home	Yes	Yes
Day camp	Yes	No
Relative,[1] at child's home	No	Yes
Relative,[1] somewhere else	Yes	Yes
Relative,[1] site unknown	Unknown	Yes
Nursery or preschool	Yes	No
Kindergarten extended day care	Yes	No
Other	Unknown	No
Unknown	Unknown	Unknown

[1] Sibling, grandparent, or other or unspecified relative.

The NHIS–CH interviewers asked the number of hours spent in each type of child care arrangement reported, including nursery school, preschool, and kindergarten extended day care. The main source of child care was defined as the arrangement in which the child spent the greatest number of hours per week. When multiple child care arrangements were reported but the number of hours spent in any of these arrangements was unknown, the main source of care could not be determined.

The codes for whether the child's main source of care was outside the home and whether the main care provider was related to the child were based on the main source of care, as shown in table 1. For the purposes of this analysis, all care by the father was assumed to have been in the child's home.

Children were coded as having multiple sources of care if they were reported as having more than one form of regular child care arrangement, including kindergarten extended day care, nursery school, and preschool. Changes in child care arrangements were ascertained using the question, "How many times has _____'s main child care arrangement changed in the past year?"

The number of children sharing care was measured using the question, "Including _____, how many children are usually cared for together, in the same group, at the same time? Do not include children in the entire school or program." The ratio of children to providers was calculated using this question and another: "How many adults usually supervise the children in the same group as _____?" This ratio could not be ascertained for one-fourth of all children because of missing data in either the numerator (number of children sharing care) or the denominator (number of supervisory adults). Although the responses provided look reasonable in relation to type of child care arrangement, the issue of potential nonresponse bias must be considered in interpreting these data.

An even larger item nonresponse rate was obtained for questions concerning special training received by the main child care provider. Approximately one-third of the respondents to whom these questions should have been addressed did not provide an answer, either because they did not know or because of interviewer error. Although provider training is a useful measure of child care quality, these data were not included in this analysis because of the high nonresponse rate.

Findings

Use of child care

Data from the 1988 NHIS–CH revealed that two-thirds (68 percent) of U.S. children 5 years of age and under had been in a child care arrangement at some point in their lives (table 2). The proportion who had ever received care increased with age, from 56 percent of children under 2 years of age to 80 percent of those ages 4–5 years who were not in school. Receipt of child care was strongly associated with socioeconomic status. Children with annual family incomes of $40,000 or more were far more likely than children with family incomes of less than $10,000 to ever have received care, 79 percent compared with 48 percent. The percent of children ever cared for in a regular child care arrangement increased with mother's education as well, from 47 percent of those whose mothers did not complete high school to 78 percent of those whose mothers had attended college. Although mother's employment is clearly an important factor in the use of child care, even among children of mothers not currently employed, more than one-third had been in a child care arrangement at some time.

In 1988, 60 percent of children 5 years of age and under were currently being cared for in a regular child care arrangement; that is, they had received care in the 4 weeks preceding the NHIS–CH interview. Child care was commonly reported for even the youngest children, 50 percent of those under 2 years of age. As with those who ever had received child care, current users of care were not

Table 2. Number of children 5 years of age and under and percent ever and currently cared for in a regular child care arrangement, by selected social and demographic characteristics: United States, 1988

[Data are based on household interviews of the civilian noninstitutionalized population. The survey design, general qualifications, and information on the reliability of the estimates are given in the technical notes]

Characteristic	Number of children in thousands	Child care status: Ever cared for, Percent	Ever cared for, Standard error	Currently cared for, Percent	Currently cared for, Standard error
All children[1]	22,107	67.7	0.8	60.0	0.8
Age and school status					
Under 2 years	7,535	55.6	1.3	50.1	1.3
2–3 years	7,389	69.5	1.2	62.4	1.2
4–5 years, not in school	4,709	80.4	1.5	72.7	1.7
4–5 years, in school	2,304	74.3	2.2	57.4	2.6
Race					
White	17,828	68.5	0.8	60.9	0.8
Black	3,336	63.5	1.9	54.9	2.0
Hispanic origin					
Hispanic	2,537	59.8	2.2	53.3	2.4
Non-Hispanic	18,644	68.8	0.8	60.8	0.8
Family income					
Less than $10,000	3,046	47.6	2.1	36.7	2.0
$10,000–$24,999	6,279	66.4	1.4	57.9	1.4
$25,000–$39,999	5,550	73.3	1.3	65.5	1.5
$40,000 or more	4,905	79.2	1.3	73.7	1.4
Geographic region					
Northeast	4,055	60.6	2.1	55.3	1.9
Midwest	5,675	70.5	1.4	61.8	1.7
South	7,642	69.3	1.3	60.1	1.3
West	4,735	67.8	1.4	61.5	1.5
Place of residence					
MSA					
Central city	7,038	65.1	1.4	57.3	1.4
Not central city	9,886	69.5	1.0	62.5	1.0
Not MSA	5,183	67.8	1.5	58.7	1.6
Mother's education					
Less than 12 years	3,959	47.4	2.1	37.6	2.0
12 years	9,071	66.3	1.2	58.5	1.2
More than 12 years	9,078	77.8	1.0	71.0	1.1
Mother's employment status					
Employed[2]	10,174	99.6	0.1	98.9	0.3
Not employed	10,136	34.9	1.2	20.1	1.0

[1] Includes races other than white or black and unknown origin, income, education, and employment.
[2] Includes looking for work and not in the labor force.

NOTES: Care arrangement includes nursery school, preschool, and kindergarten extended day care. Percents exclude unknown values for ever and current care from numerator and denominator; numbers of children include those with unknown values. MSA is metropolitan statistical area.

restricted to the children of employed women. One-fifth of the children of mothers who were not employed currently received some form of child care.

Main source of care

As shown in table 3, the most commonly used child care arrangements for children 5 years of age and under were nursery schools or preschools (used by 23 percent of the children receiving care), care provided by a nonrelative in a home other than the child's own home (21 percent), and care provided by the child's father (13 percent). Eight percent of the children were cared for in their own homes by unrelated providers; other sources of care provided within the child's home were grandparents (6 percent) and other relatives (3 percent). Grandparents and other relatives also provided care in homes other than the child's home—9 percent and 3 percent, respectively. Five percent of the children receiving care were cared for by their mothers while they worked. In addition to the large proportion of children receiving group care in nursery or preschools, 8 percent attended day care centers, including kindergarten extended day care programs and day camp. Thus, the proportions of children cared for in group settings, in their own homes, and in other homes were about one-third each.

The children's main source of care varied according to their age. For children under 2 years of age, the most common source of care was a nonrelative in a private home other than that of the child—family day care. For children ages 2–3 years and those ages 4–5 years who were not in school, the most common source of care was a nursery or preschool. For children ages 4–5 years who were in school, the most common form of care was a day care center. In general, the proportion of children cared for in their own homes decreased with the age of child; however, home care also was common for children ages 4–5 years who were in school and presumably required only before- or after-school care.

Sources of child care differed sharply for children of employed and unemployed mothers. The latter strongly favored nursery schools or preschools, which together accounted for 63 percent of all care for this group. The distribution of care arrangements used by employed mothers was far more dispersed.

Two-thirds of all children who received some form of child care in 1988 were cared for outside their homes, either in another home or in an institutional group care setting (table 4). Children ages 4–5 years who were not in school were the most likely to receive care outside their homes (77 percent); least likely were children ages 4–5 years who did attend school (56 percent) and children under 2 years of age (57 percent).

Of the children who received care, 38 percent were related to their main care providers. The proportion of

Table 3. Number of children 5 years of age and under currently cared for in a regular child care arrangement and percent distribution by main source of care, according to selected social and demographic characteristics: United States, 1988

[Data are based on household interviews of the civilian noninstitutionalized population. The survey design, general qualifications, and information on the reliability of the estimates are given in the technical notes]

Characteristic	Number of children in thousands	Care in child's home				Care in another home			Group care		Mother, while working	Other
		Total	Father	Grandparent	Other relative	Nonrelative	Grandparent	Other relative	Nonrelative	Nursery or preschool	Day care center[1]		
		Percent distribution[2]											
All children[3]	13,259	100.0	12.9	6.0	2.6	7.6	8.7	2.6	21.3	23.4	7.8	4.8	2.5
Age and school status													
Under 2 years	3,772	100.0	15.4	8.8	2.5	10.2	9.7	3.7	28.1	–	11.8	6.6	3.0
2–3 years	4,609	100.0	12.5	4.7	2.3	7.5	9.3	2.8	21.1	28.8	3.8	4.5	2.6
4–5 years, not in school	3,421	100.0	9.6	3.1	*2.6	4.5	7.0	1.3	14.7	49.7	2.7	3.6	*1.2
4–5 years, in school	1,323	100.0	16.4	9.5	*3.8	8.7	7.6	*1.5	19.1	–	25.7	*3.3	4.3
Race													
White	10,854	100.0	13.2	4.7	2.1	8.2	7.6	2.3	22.9	23.6	7.6	5.4	2.5
Black	1,830	100.0	9.2	11.0	5.8	*3.3	16.2	4.3	15.2	21.4	10.5	*1.4	*1.7
Hispanic origin													
Hispanic	1,352	100.0	10.1	8.0	8.1	6.7	10.2	4.9	22.7	21.1	5.1	*1.9	*1.2
Non-Hispanic	11,331	100.0	12.8	5.6	2.0	7.7	8.6	2.3	21.2	23.8	8.1	5.2	2.7
Family income													
Less than $10,000	1,119	100.0	12.6	6.7	*5.5	5.5	13.0	*3.4	13.1	25.1	6.5	5.5	*3.1
$10,000–$24,999	3,635	100.0	17.9	5.7	3.6	5.5	10.2	2.9	21.9	18.2	6.0	6.1	2.1
$25,000–$39,999	3,635	100.0	13.4	4.7	*1.5	6.4	9.3	2.6	23.7	22.7	9.0	4.6	2.0
$40,000 or more	3,613	100.0	8.5	4.8	*1.8	10.7	6.2	1.6	22.1	28.7	8.5	3.5	3.6
Geographic region													
Northeast	2,242	100.0	17.0	8.3	1.8	10.5	9.8	*2.0	17.5	20.0	6.9	4.5	1.7
Midwest	3,492	100.0	14.7	5.1	*2.3	7.8	7.2	2.0	26.5	20.1	6.1	5.5	2.6
South	4,596	100.0	10.0	5.8	2.7	6.2	10.8	3.3	19.1	25.8	10.2	3.8	2.3
West	2,913	100.0	12.1	5.5	3.4	7.1	6.1	*2.5	21.3	26.2	6.9	5.6	*3.3
Place of residence													
MSA													
Central city	4,035	100.0	10.9	8.9	4.2	7.5	9.9	2.3	18.9	24.1	7.3	3.4	2.6
Not central city	6,182	100.0	13.5	4.9	1.5	7.6	6.9	2.6	21.4	25.3	9.0	5.0	2.4
Not MSA	3,042	100.0	14.3	4.1	2.7	7.6	10.6	2.8	24.1	18.7	6.3	6.1	*2.6
Mother's education													
Less than 12 years	1,488	100.0	16.5	6.8	9.4	6.6	10.3	*3.6	15.3	19.7	3.7	4.2	*3.9
12 years	5,308	100.0	13.3	7.7	2.5	6.5	9.8	3.5	21.5	21.4	7.2	4.1	2.6
More than 12 years	6,446	100.0	11.7	4.4	1.1	8.7	7.4	1.6	22.4	25.9	9.3	5.4	2.1
Mother's employment status													
Employed	10,060	100.0	15.6	6.2	2.6	7.5	9.8	2.8	24.2	16.0	8.4	5.6	1.3
Not employed[4]	2,033	100.0	*0.9	3.2	*0.7	6.4	4.0	0.9	8.8	62.7	5.2	*0.1	7.1

[1] Includes kindergarten extended day care and day camp.
[2] Percents exclude unknown values for main source of care from numerator and denominator; numbers of children include those with missing values.
[3] Includes other races and unknown origin, income, education, and employment status.
[4] Includes looking for work and not in the labor force.

NOTE: MSA is metropolitan statistical area.

children related to the main care provider was far greater for black than for white children (48 percent compared with 35 percent) and somewhat greater for non-Hispanic than for Hispanic children (44 percent versus 37 percent). The probability of a child's being related to his or her main care provider was inversely related to the child's socioeconomic status.

Children whose mothers were employed were four times as likely to be related to their main care providers as children whose mothers were not employed—43 percent compared with 10 percent. Children ages 4–5 years who were not in school were the least likely to have a relative as their main care provider.

Stability of child care arrangements

The 1988 NHIS–CH addressed two aspects of stability in child care arrangements—use of multiple sources of child care and changes in source of care. Multiple sources of care may be as permanent as a single source; in fact, children cared for in multiple arrangements were only

Table 4. Number of children 5 years of age and under currently cared for in a regular child care arrangement, percent whose main source of care is outside the home, and percent whose main care provider is a relative, by selected social and demographic characteristics: United States, 1988

[Data are based on household interviews of the civilian noninstitutionalized population. The survey design, general qualifications, and information on the reliability of the estimates are given in the technical notes]

Characteristic	Number of children in thousands	Main source of care is outside the home		Main care provider is a relative	
		Percent	Standard error	Percent	Standard error
All children[1]	13,259	66.4	0.9	37.5	0.9
Age and school status					
Under 2 years	3,772	56.8	1.6	46.9	1.8
2–3 years	4,609	68.8	1.6	36.3	1.8
4–5 years, not in school	3,421	77.1	1.7	27.2	1.6
4–5 years, in school	1,323	56.0	3.5	42.3	3.2
Race					
White	10,854	66.8	1.0	35.3	1.0
Black	1,830	69.3	2.6	47.9	2.9
Hispanic origin					
Hispanic	1,352	65.6	2.9	43.5	3.4
Non-Hispanic	11,331	66.7	1.0	36.6	1.0
Family income					
Less than $10,000	1,119	63.4	3.4	46.8	3.6
$10,000–$24,999	3,635	62.3	1.8	46.5	1.7
$25,000–$39,999	3,635	69.6	1.6	36.3	1.7
$40,000 or more	3,613	70.2	1.6	26.4	1.6
Geographic region					
Northeast	2,242	58.2	1.8	43.5	2.0
Midwest	3,508	64.6	1.8	36.9	1.7
South	4,596	72.2	1.7	36.5	1.5
West	2,913	65.9	2.3	35.4	2.4
Place of residence					
MSA:					
Central city	4,035	64.7	1.7	39.6	1.6
Not central city	6,182	68.1	1.2	34.5	1.2
Not MSA	3,042	65.5	1.8	40.7	2.0
Mother's education					
Less than 12 years	1,488	55.2	3.3	51.0	3.2
12 years	5,308	66.3	1.6	41.0	1.4
More than 12 years	6,446	69.1	1.4	31.6	1.2
Mother's employment status					
Employed	10,060	63.3	1.0	42.7	1.0
Not employed[2]	2,033	87.7	1.7	9.9	1.6

[1] Includes races other than white or black and unknown origin, income, education, and employment status.
[2] Includes looking for work and not in the labor force.

NOTES: Care arrangement includes nursery school, preschool, and kindergarten extended day care. Percents exclude unknown values for location and relationship of main source of care from numerator and denominator; numbers of children include those with unknown values. MSA is metropolitan statistical area.

slightly more likely than those with a single source of care to have changed caretakers in the preceding year (28 percent compared with 22 percent).

Overall, 28 percent of the children receiving child care in 1988 had multiple sources of care (table 5). The children most likely to have more than a single source of care were those ages 4–5 years who were not in school (38 percent). Children whose mothers were not employed were the least likely to use multiple sources of child care.

One-fourth of the children receiving child care in 1988 had changed child care arrangements at least once in the 12 months preceding the NHIS–CH interview. Children 4–5 years of age who were in school were the most likely to have changed arrangements, 31 percent. Changes in child care arrangements were far more common among children whose mothers were employed (27 percent) than among those whose mothers were not employed (16 percent).

Use of multiple child care arrangements and changes in child care arrangements appeared to vary according to main source of care (table 6), but a larger sample is needed to confirm any differences. Because of the numerous categories for main source of care and the relatively large standard errors associated with each estimate, very few of the differences shown in table 5 are statistically significant.

The NHIS–CH data suggest that children cared for by their fathers or in nursery schools or preschools were the most likely to use more than a single source of care and that those cared for by grandparents or relatives in the child's own home were the least likely to do so. Children cared for primarily by their mothers appeared to be the least likely to have experienced a change in care, 10 percent. The children who appeared to be most likely to have changed child care arrangements in the preceding year were those cared for by nonrelatives, in either the child's or another home, and those attending day care centers. For children cared for in group care situations, such as day care centers or nursery schools, these estimates of change are somewhat low in that they do not reflect staff changes within a specific setting.

Number of children sharing care

One measure of child care quality is the number of children cared for by the same provider. Not only is the child-to-provider ratio indicative of the level of supervision, but the actual number of other children to whom a child is exposed on a regular basis influences the likelihood of infection with communicable diseases. According to the NHIS–CH data, 23 percent of the children receiving care in 1988 were cared for alone (table 7). Thirty-five percent were

Table 5. Number of children 5 years of age and under currently cared for in a regular child care arrangement, percent with multiple child care arrangements, and percent whose main source of care changed in last year, by selected social and demographic characteristics: United States, 1988

[Data are based on household interviews of the civilian noninstitutionalized population. The survey design, general qualifications, and information on the reliability of the estimates are given in the technical notes]

Characteristic	Number of children in thousands	Multiple child care arrangements		Main source of care changed in last year	
		Percent	Standard error	Percent	Standard error
All children[1]	13,259	27.7	0.8	24.7	0.8
Age and school status					
Under 2 years	3,772	19.4	1.2	22.3	1.5
2–3 years	4,609	28.2	1.5	26.9	1.6
4–5 years, not in school	3,421	38.0	1.7	22.1	1.5
4–5 years, in school	1,323	21.4	2.4	30.6	2.8
Race					
White	10,854	29.1	0.9	25.5	0.9
Black	1,830	20.9	2.1	20.1	2.1
Hispanic origin					
Hispanic	1,352	23.0	2.5	22.1	2.5
Non-Hispanic	11,331	28.3	0.9	24.8	1.0
Family income					
Less than $10,000	1,119	23.3	3.1	24.9	3.0
$10,000–$24,999	3,635	26.6	1.6	26.1	1.8
$25,000–$39,999	3,635	29.5	1.7	24.8	1.7
$40,000 or more	3,613	28.5	1.5	25.4	1.7
Geographic region					
Northeast	2,242	30.9	2.1	19.7	1.3
Midwest	3,508	28.2	1.4	24.6	1.7
South	4,596	25.4	1.6	26.0	1.4
West	2,913	28.0	1.5	26.6	1.9
Place of residence					
MSA:					
Central city	4,035	26.5	1.4	24.2	1.6
Not central city	6,182	28.6	1.2	25.1	1.3
Not MSA	3,042	27.3	2.1	24.8	1.6
Mother's education					
Less than 12 years	1,488	20.4	2.4	20.7	2.7
12 years	5,308	28.0	1.5	24.8	1.4
More than 12 years	6,446	29.0	1.2	25.5	1.0
Mother's employment status					
Employed	10,060	30.9	1.0	26.6	1.0
Not employed[2]	2,033	13.6	1.6	15.8	2.2

[1] Includes other races and unknown origin, income, education, and employment status.
[2] Includes looking for work and not in the labor force.

NOTES: Care arrangement includes nursery school, preschool, and kindergarten extended day care. Percents exclude unknown values for number of and changes in child care arrangements from numerator and denominator; numbers of children include those with unknown values. MSA is metropolitan statistical area.

reported to be cared for in a group of 2–3 children; 20 percent were in a group of 4–6 children. Overall, then, more than three-fourths of the children in formal child care arrangements were reported to be cared for in a group of a half dozen or fewer children. Twelve percent were cared for in a group of 7–12 children, and 11 percent were cared for in a group of 13 or more children. These group sizes do not represent the full enrollment of a group care facility; they include only the children actually cared for together, for example, within a single group at a day care center.

The mean ratio of children to child care providers was 3.5 to 1. This ratio increased with age of the child and was primarily a function of the type of child care arrangement selected (table 8). The child-to-provider ratio was highest in group care settings—nursery schools or preschools (7.1 to 1) and day care centers (6.4 to 1). The lowest child-to-provider ratios were observed for care arrangements in the child's home and those provided by relatives in a home other than that of the child. In these settings, the mean ratio ranged from 2.0 to 2.7 to 1. For children in family day care, that is, cared for by unrelated providers in the providers' homes, the mean ratio of children to providers was 3.3 to 1.

Summary

In 1988, 13.3 million children 5 years of age and under were reported to be in some type of child care arrangement. Of these, approximately 83 percent were children in families in which the mother was employed. The other 17 percent were in families in which the mother was not employed. In general, the younger children tended to be in less formal care arrangements and the older children were more likely to be in formal, organized group care situations. The data on the stability of care show that a substantial proportion of the children had experienced a change in their child care arrangements during the course of the preceding year. There is surprisingly little variation with age of the child in the stability of child care arrangements.

In addition to variation by age of the child and mother's employment, characteristics of child care arrangements varied according to a number of socioeconomic and demographic characteristics. These included race and ethnicity, region and place of residence, family income, and mother's education. Further analysis of these differentials, employing a multivariate approach, will add to our knowledge of the factors that influence choices about types of child care arrangements.

References

1. Bureau of Labor Statistics. News release; no 88–431. Washington: U.S. Department of Labor. 1988.

Table 6. Number of children 5 years of age and under currently cared for in a regular child care arrangement, percent with multiple child care arrangements, and percent whose main source of care changed in last year, by main source of care: United States, 1988

[Data are based on household interviews of the civilian noninstitutionalized population. The survey design, general qualifications, and information on the reliability of the estimates are given in the technical notes]

Main source of care	Number of children in thousands	Multiple child care arrangements		Main source of care changed in last year	
		Percent	Standard error	Percent	Standard error
All sources	13,259	27.7	0.8	24.7	0.8
Care in child's home					
Father	1,709	33.4	2.6	20.8	2.2
Grandparent	789	13.5	2.6	15.8	3.0
Other relative	344	15.7	5.6	20.5	5.8
Nonrelative	1,001	23.9	2.8	31.0	3.2
Care in another home					
Grandparent	1,149	28.4	2.5	18.4	2.5
Another relative	338	17.5	4.4	21.2	4.5
Nonrelative	2,822	24.6	1.6	32.3	1.8
Group care					
Nursery or preschool	3,104	31.2	1.8	21.5	1.5
Day care center[1]	1,037	29.8	3.5	34.8	2.7
Mother, while working	633	21.4	3.6	9.8	2.5
Other	332	23.2	5.2	27.6	9.3

[1]Includes day camp and kindergarten extended day care.

NOTES: Care arrangement includes nursery school, preschool, and kindergarten extended day care. Percents exclude unknown values for number of and changes in child care arrangements from numerator and denominator; numbers of children include those with unknown values.

2. Leibowitz A, Waite LJ, Witsberger C. Child care for preschool children: Differences by child's age. Demography 25:205–20. 1988.
3. Lehrer E. Determinants of child care mode choice: An economic perspective. Soc Sci Res 12:69–80. 1983.
4. Duncan GJ, Hill CR. Model choice in child care arrangements. In: Duncan GJ, Morgan JN, eds. Five thousand American families—patterns of economic progress; vol 3. Ann Arbor, Michigan: Institute for Social Research. 1977.
5. Duncan GJ. The child care mode choice of working mothers. In: Duncan GJ, Morgan JN, eds. Five thousand American families— patterns of economic progress; vol 3. Ann Arbor, Michigan: Institute for Social Research. 1977.
6. Phillips DA, ed. Quality in child care: What does research tell us? Washington, D.C.: National Association for the Education of Young Children. 1987.
7. Johnson A, Leibowitz A, Waite LJ. Child care and children's illness. Am J Public Health 28:1175–7. 1988.
8. Presser HB. Place of child care and medicated respiratory illness among young children. J Marriage Fam 50:995–1005. 1988.
9. Shah BV. SESUDAAN: Standard errors program for computing standardized rates from sample survey data. Research Triangle Park, North Carolina: Research Triangle Institute. 1981.
10. Levy PS, Lemeshow S. Sampling for health professionals. Belmont, California: Wadsworth, Inc. 1980.

Symbols

--- Data not available
. . . Category not applicable
— Quantity zero
0.0 Quantity more than zero but less than 0.05
* Figure does not meet standards of reliability or precision

Table 7. Number of children 5 years of age and under currently cared for in a regular child care arrangement, percent distribution by number of children cared for in arrangement, and mean ratio of children to providers, according to selected characteristics: United States, 1988

[Data are based on household interviews of the civilian noninstitutionalized population. The survey design, general qualifications, and information on the reliability of the estimates are given in the technical notes]

Characteristic	Number of children in thousands	Number of children cared for						Mean ratio of children to providers	
		Total	1	2–3	4–6	7–12	13 or more	Ratio	Standard error
		Percent distribution							
All children[1]	13,259	100.0	22.7	34.7	19.9	11.7	11.0	3.5	0.1
Age and school status									
Under 2 years	3,772	100.0	29.7	35.9	21.2	9.5	3.6	2.7	0.1
2–3 years	4,609	100.0	22.2	34.1	23.8	11.3	8.5	3.5	0.1
4–5 years, not in school	3,421	100.0	15.4	33.7	14.2	16.3	20.4	4.3	0.2
4–5 years, in school	1,323	100.0	15.1	34.6	14.6	11.6	24.1	4.9	0.3
Race									
White	10,854	100.0	21.7	34.6	20.8	12.4	10.5	3.6	0.1
Black	1,830	100.0	25.0	35.4	17.6	8.9	13.1	3.4	0.2
Hispanic origin									
Hispanic	1,352	100.0	27.2	40.3	16.9	6.6	9.1	3.2	0.2
Non-Hispanic	11,331	100.0	22.0	33.7	20.5	12.4	11.3	3.6	0.1
Family income									
Less than $10,000	1,119	100.0	29.6	30.7	21.1	10.7	7.9	3.3	0.4
$10,000–$24,999	3,635	100.0	24.2	40.1	17.6	9.1	9.0	3.2	0.1
$25,000–$39,999	3,635	100.0	21.7	34.0	18.8	14.2	11.2	3.7	0.2
$40,000 or more	3,613	100.0	19.9	31.7	22.9	13.0	12.5	3.7	0.1
Geographic region									
Northeast	2,242	100.0	27.8	34.8	18.6	7.2	11.7	3.1	0.2
Midwest	3,508	100.0	18.8	34.2	24.8	13.5	8.6	3.4	0.1
South	4,596	100.0	24.2	35.4	15.5	12.4	12.5	3.7	0.1
West	2,913	100.0	21.5	34.2	21.6	11.6	11.1	3.7	0.2
Place of residence									
MSA:									
Central city	4,035	100.0	22.0	35.6	19.7	11.7	11.1	3.4	0.1
Not central city	6,182	100.0	21.1	35.7	19.4	11.9	12.0	3.6	0.1
Not MSA	3,042	100.0	26.7	31.8	21.0	11.5	9.0	3.6	0.2
Mother's education									
Less than 12 years	1,488	100.0	23.3	47.3	17.0	6.2	*6.2	2.8	0.2
12 years	5,308	100.0	24.4	35.3	19.0	11.2	10.1	3.5	0.1
More than 12 years	6,446	100.0	21.1	31.6	21.2	13.3	12.8	3.7	0.1
Mother's employment status									
Employed	10,060	100.0	22.5	35.3	20.1	11.4	10.8	3.6	0.1
Not employed[2]	2,033	100.0	22.4	27.8	19.6	17.2	13.0	3.6	0.2

[1] Includes other races and unknown origin, income, education, and employment status.
[2] Includes looking for work and not in the labor force.

NOTES: Care arrangement includes nursery school, preschool, and kindergarten extended day care. Percents exclude unknown values for number of children sharing care from numerator and denominator; numbers of children include those with unknown values. MSA is metropolitan statistical area.

Table 8. Number of children 5 years of age and under currently cared for in a regular child care arrangement, percent distribution by number of children cared for in arrangement, and mean ratio of children to providers, according to main source of care: United States, 1988

[Data are based on household interviews of the civilian noninstitutionalized population. The survey design, general qualifications, and information on the reliability of the estimates are given in the technical notes]

Main source of care	Number of children in thousands	Number of children cared for						Mean ratio of children to providers	
		Total	1	2–3	4–6	7–12	13 or more	Ratio	Standard error
		Percent distribution							
All sources	13,259	100.0	22.7	34.7	19.9	11.7	11.0	3.5	0.1
Care in child's home									
Father	1,709	100.0	27.7	50.2	*9.1	*6.8	*6.2	2.7	0.3
Grandparent	789	100.0	44.4	45.0	*4.9	*1.1	*4.6	2.2	0.3
Other relative	344	100.0	32.0	47.5	*18.9	*1.6	–	2.2	0.2
Nonrelative	1,001	100.0	26.5	59.2	8.2	*4.7	*1.3	2.3	0.1
Care in another home									
Grandparent	1,149	100.0	48.9	37.8	5.5	*3.1	4.7	2.0	0.1
Another relative	338	100.0	33.5	43.8	17.7	*4.2	*0.7	2.4	0.2
Nonrelative	2,822	100.0	15.6	38.2	36.5	7.8	2.0	3.3	0.1
Group care									
Nursery or preschool	3,104	100.0	*2.4	*5.3	9.0	38.1	45.3	7.1	0.3
Day care center[1]	1,037	100.0	*0.9	5.6	21.9	30.6	40.9	6.4	0.3
Mother, while working	633	100.0	*50.6	*44.7	–	–	*4.7	3.1	1.4
Other	332	100.0	*27.0	*12.2	30.0	24.0	*6.8	3.8	0.6

[1]Including day camp and kindergarten extended day care.

NOTES: Care arrangement includes nursery school, preschool, and kindergarten extended day care. Percents exclude unknown values for number of children sharing care from numerator and denominator; numbers of children include those with missing values.

Technical notes

The estimates presented in this report are based on data from the National Health Interview Survey (NHIS), an ongoing survey of U.S. households conducted by the National Center for Health Statistics. Each week, a probability sample of the civilian noninstitutionalized population of the United States is interviewed by personnel of the U.S. Bureau of the Census. Interviewers obtain information about the health and other characteristics of each member of the households included in the NHIS sample.

NHIS consists of two parts: (a) a basic health questionnaire that remains the same each year and is completed for each household member and (b) special topics questionnaires that vary from year to year and usually are asked of just one person in each family. In 1988, the special topics included acquired immunodeficiency syndrome (AIDS) knowledge and attitudes, medical device implants, occupational health, alcohol, and child health.

The total sample interviewed for 1988 for the basic health questionnaire consisted of 47,485 households containing 122,310 individuals. The total response rate was 95 percent. For the National Health Interview Survey on Child Health (NHIS–CH), one sample child 17 years of age and under was selected from each family with children in that age range. Interviews were completed for 17,110 children 17 years of age and under, 95 percent of those identified as eligible on the basis of the basic health questionnaire. The overall response rate for NHIS–CH was 91 percent, the product of the response rates for the basic and the child health questionnaires.

Because the estimates presented in this report are based on a sample of the population, they are subject to sampling errors. Standard errors of most estimates have been included in the tables. In a few tables where lack of space prohibited inclusion of individual standard errors, estimates were asterisked whose relative standard errors (the standard error divided by the estimate itself) exceeded 30 percent. The standard errors for this report were calculated using SESUDAAN, a SAS-based software package designed to produce standard errors for estimates based on complex, multistage sample designs (9). Standard errors based on such survey designs are typically about 20 percent larger than those that would be obtained with a simple random sample of the same size.

In this report, persons for whom valid responses were not available for certain items were excluded from both the denominators and the numerators of percents and percent distributions. This exclusion of unknowns implicitly assumes that the response distribution for these persons is the same as that for those for whom valid responses were provided. Item nonresponse on the child care variables considered in this report was fairly high, generally 5–8 percent, because of the complex skip instructions and because many of the measures used were derived from a large number of independent questions.

All differences cited in this report are statistically significant at the 0.05 level. The *t*-test, with a critical value determined by the number of response categories for an individual variable (10), was used to test all pairwise comparisons. Lack of comment regarding the difference between any two estimates does not mean that the difference was tested and found not to be statistically significant.

Recent Issues of *Advance Data From Vital and Health Statistics*

No. 186. AIDS Knowledge and Attitudes for October–December 1989 (June 25, 1990)

No. 185. 1988 Summary: National Hospital Discharge Survey (June 19, 1990)

No. 184. Use of Family Planning Services in the United States: 1982 and 1988 (April 11, 1990)

No. 183. AIDS Knowledge and Attitudes for July–September 1989 (March 8, 1990)

No. 182. Contraceptive Use in the United States, 1973–88 (March 23, 1990)

No. 181. Adoption in the 1980's (January 5, 1990)

Suggested citation

Dawson DA, Cain VS. Child care arrangements: Health of our Nation's children, United States, 1988. Advance data from vital and health statistics; no 187. Hyattsville, Maryland: National Center for Health Statistics. 1990.

Copyright information

This report may be reprinted without further permission.

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Public Health Service
Centers for Disease Control
National Center for Health Statistics
6525 Belcrest Road
Hyattsville, Maryland 20782

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE, $300

To receive this publication regularly, contact the National Center for Health Statistics by calling 301-436-8500

DHHS Publication No. (PHS) 90-1250

BULK RATE
POSTAGE & FEES PAID
PHS/NCHS
PERMIT No. G-281